

EVALUATION OF THE INSTRUCTOR TRAINING SCHOOL
AT SAN DIEGO

MYRON ALPERT

Thesis
A42

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EVALUATION OF THE INSTRUCTOR TRAINING SCHOOL
AT SAN DIEGO

A THESIS
SUBMITTED TO THE
SCHOOL OF EDUCATION AND
THE COMMITTEE ON GRADUATE STUDY
OF
LELAND STANFORD JUNIOR UNIVERSITY
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS
FOR THE DEGREE
OF
MASTER OF ARTS

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APPROVED FOR THE SCHOOL OF EDUCATION

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M.A.

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CHAPTER I

THE PROBLEM AND ITS SCOPE

The Problem

This study was made to provide an evaluation of the Naval School, Instructors, Class C-1, conducted by the Service School Command at the Naval Training Center in San Diego, California. The objectives of the school were reviewed, and criteria which would be useful in measuring the degree of fulfillment of these objectives were investigated and determined. A survey was then undertaken to discover how well the Instructor School attained these objectives.

Need for the Study

As of October 31, 1948, there were some 60,000 officers and men in formal training at shore based schools.¹ At that time, it was considered that the quality of instruction at these schools had deteriorated to an alarming low. The Navy then decided that the establishment of instructor schools was necessary as the first step in alleviating this situation.

Since their inception in January of 1949, no evaluation, up to this time, has been attempted of the instructor schools. A total of 2480 officers and enlisted men have been graduated

1. Education and Training, NavPers 10627, Bureau of Naval Personnel, p. 202. Washington, D.C.: The Bureau, 1949.

from the San Diego school. It was believed that enough time had elapsed to provide a significant measure of the effectiveness of the Navy program of instructor training. Valid data was required which might be used in the Bureau of Naval Personnel for the preparation and revision of instructor training curricula and materials. In addition, a group of criteria which could show some usefulness and validity could be employed in the evaluation of other instructor training programs throughout the Navy.

Delimitations

Four separate courses of instruction are offered at the San Diego school. The basic "A" course is for officers and enlisted men who will be ordered to instructor duty at enlisted service schools and recruit training commands. This course is of four weeks duration and is a prerequisite for all personnel assigned to instructor duty in service schools under the cognizance of the Bureau of Naval Personnel. The "B" course is a special course designed for enlisted personnel who will be ordered to N.R.O.T.C. units. This course, four weeks in length, is conducted twice yearly. The "C" course is a two-week shipboard training course for selected officers and enlisted men of the forces afloat and fleet activities. The fourth course offered, the "D" course, is of two weeks duration for officers and enlisted men of the Naval Reserve.

This study was focused on the "A" course. This is the basic course, accounting for more than half of the graduates of the entire school. Of the 2400 graduates of the San Diego school, 1013 were graduated from this course. In addition, these graduates were readily available within the continental limits of the United States for questioning, observing, and evaluating. Graduates from the other courses were widely scattered, some actually in instructing billets, others not. The difficulties of obtaining a representative sampling from these graduates would have been practically insurmountable.

Method of Making Investigation

The objectives of the school to be evaluated were determined from the curriculum prepared by the Curriculum and Instructor Training Section of the Bureau of Naval Personnel. Although experience and changing conditions dictate periodic revisions in the curriculum by this Section in cooperation with the instructing staffs at the schools, the objectives of the course have remained unchanged. Examination of current literature and personal interview with civilian educators and naval officers familiar with the Navy training program were the primary channels for developing the criteria used. The measurement of the attainment of the stated objectives was obtained in several ways. Questionnaires were delivered to graduates of the San Diego

school who were occupying instructor billets at service schools. Navy schools at Treasure Island, San Francisco, and at San Diego were visited to obtain data on graduate instructors in their actual performance of instructing duties. A visit was also made to the Naval School, Instructors, Class C-1, at San Diego for consultation with the administrative officials and for observation of instruction at the school.

Definitions

Officers is used to include all commissioned officers of the Navy.

Enlisted men, used interchangeably with men, includes all non-commissioned personnel of the Navy. The chain of advancement in the enlisted structure is as follows: seaman recruit, seaman apprentice, seaman, petty officer third class, petty officer second class, petty officer first class, and chief petty officer.

The Bureau of Naval Personnel, short title, BuPers, is one of the major executive divisions of the Navy Department. The training responsibility delegated to this bureau is defined in Navy regulations as recruit, basic, technical training and education of all personnel of the Navy including the Naval Reserve and the Naval Reserve Officers' Training Corps, as individuals, except such types of training as are assigned to other bureaus, offices, or commands. These

exceptions are aviation training and professional education and training of medical personnel.

Recruit training is the first step in the transition from civilian life to military life. It consists of a fourteen week training period in which the recruit is indoctrinated in the "why's" of the Navy's customs, courtesies, and discipline. An understanding of the importance of teamwork, his status in and importance to the Navy, the opportunity offered for a career in the Navy, and an appreciation of the American way of life and the Navy's place in our democracy are developed in the recruit during this training. He is also classified according to his educational capabilities and background so that he may be channeled toward the field of vocational work for which he is deemed most fitted.

Service schools are planned, administered, and supported by the Bureau of Naval Personnel for the purpose of providing training for enlisted personnel at successively higher levels.

Class "A" schools are designed to provide training which includes all the technical qualifications required for advancement to petty officer third and second class.

Class "B" schools provide more advanced formal training in technical qualifications required for advancement to petty officer first class and chief petty officer.

Class "C" schools provide specialized formal training in a particular job qualification or skill which is closely

related to the man's rating. This type school is divided into class "C-1", located in naval establishments, and class "C-2", located in civilian industrial plants.

Naval Reserve Officers' Training Corps units are at present located at fifty-two different colleges and universities throughout the United States. They are administered by Navy Captains or Marine Corps Colonels, and are staffed by officers and enlisted men of the Navy and Marine Corps. In addition to the subjects ordinarily required for a baccalaureate or higher degree, these NROTC students must take courses in subjects that will materially aid them in performing duties as officers. It is contemplated that in the future approximately one half of the Line officers of the Navy will be graduates of NROTC units.

CHAPTER II

NAVAL INSTRUCTOR TRAINING

Mission of Naval Training

The policy of the United States Navy has been summarized as follows:¹ To maintain the Navy as a highly integrated entity in sufficient strength on the sea, below the sea, and in the air to protect the United States and all its possessions against all enemies. In order to accomplish these objectives, modern warships and aircraft have been developed. Keeping pace with the great strides that have been made in modern science are the elaborate mechanical and electronic devices in use throughout the Navy. To make the most effective use of this myriad of complicated machinery requires highly trained personnel. It is the duty of the Navy's Training Establishment to train personnel so that maximum efficiency is attained in the employment of naval material.

The Navy realizes the importance of good instruction. It is considered allied to good leadership. Not only does the responsibility for instruction rest on those assigned to training billets, but it also rests on all commissioned and petty officers. Navy regulations² specify the responsibilities for training assigned to watch and division

1. Education and Training, Navpers 10627, Bureau of Naval Personnel, p. 1 Washington, D.C.: The Bureau, 1949.

2. U.S. Navy Regulations. Washington, D.C.: United States Government Printing Office, 1943.

officers. Article 1003 states, "He shall instruct them (all persons on watch under him) as may be necessary in the performance of their duties. This article applies to any officers or petty officers on watch. It gives them, therefore, a training responsibility closely approximating that of the division officer and his subordinates. Article 1004, states the responsibilities of the division officer in the matter of training as follows: He shall train his subordinates in their own duties and in duties to which they may succeed, and shall encourage them to qualify for advancement and to improve their education."

In fact, the Navy considers instructing ability so important for its petty officers that it has been included among the military requirements for all enlisted personnel. The specific requirements concerning instructing ability as a factor for advancement in rating are as follows:¹

Instruct personnel using on-the-job training methods.

Prepare for and conduct group instruction, adapting and using available lesson plans, training aids, or equipment.

Plan and conduct drill, using equipment adapted to own rating.

Prepare written outlines for own use of the following types: Information Sheets (outlining main points for

1. Manual of Qualifications for Advancement in Rating, Navy's 1000. Washington, D.C.: The Bureau, 1949.

understanding); Job Sheets (outlining step-by-step procedure for specific job or operation); Lesson Plans (over-all outline prepared as a guide for own use in conducting instruction).

Measure trainee's progress and proficiency by means of performance tests, written tests, or oral questions of own composition.

Prepare a list of knowledges and skills required by personnel in own rating.

Development of Navy Instructor Program

Prior to the last world war, the primary emphasis was placed on training naval personnel on board navy vessels. The Commanding Officer was given over-all responsibility for the development of all personnel under his command. At the time, this was not considered too great a task. By the time a naval officer reached a position of such responsibility and trust, he usually had had actual experience in every department aboard ship. He was familiar with every piece of machinery employed throughout the ship. He was able to evaluate their capabilities and performance through his own intimate knowledge of each individual machine.

With the advent of World War II, however, the intricate designs and the involved operation of new machinery required a shift to specialized training. No one man possibly could be expected to have first-hand knowledge of all modern equipment required aboard naval vessels and aircraft. Decentralization became mandatory. The Commanding Officer was required

to place more dependence upon subordinates who had received specialized training. This fact entailed the problem of insuring adequate training for large numbers of men in as short a time as possible. War experience soon showed that individuals could best gain, in the shortest possible time, the achievements in basic skills required in the complex operations of the Navy through formal schooling.¹ This concept then posed the problem of providing these schools with competent instructors. Of the 5108 instructors located at 166 naval training activities in 1944, very few had previous teaching experience. With these figures as a criterion, the Navy considered it most advisable to establish schools for instructors.

One of the earliest instructor training programs was set up by the Army at Fort Knox, Kentucky, headquarters of the Armored Force Command.² Started in 1941 as a program for training instructors for the Armored schools, this instructor training program was assigned to Colonel Verne C. Fryklund, now President of Stout Institute. He was assisted by a staff of civilian training specialists from various colleges, high schools, vocational schools, and industrial

1. Education and Training, op. cit., p. 2.

2. The historical data in this section was obtained from an article, "Instructor Training in the Navy", written by Homer C. Rose of the Training Division, Bureau of Naval Personnel, appearing in the U.S. Naval Training Bulletin, NavPers 1473, of June, 1945.

training programs. This program had a strong effect on future Armed Forces instructor training programs.

In July of 1943 the Navy inaugurated its instructor training program by ordering a training officer to Bainbridge for duty at the Service School Command. His mission was to build up shops, laboratories, and classrooms and to improve instruction at the schools then in existence. He was soon joined by five additional officers who immediately set to work as a team in putting into effective use the Class A curricula prepared by the Curriculum Unit of the Bureau of Naval Personnel. The problems met by this group were many and complex. There was a decided shortage of training equipment, most of it being needed for instruction deemed more critical aboard ships. Another problem was to initiate and develop textbooks, training aids, lesson plans, and tests which could be effectively used with the available facilities. The third, and perhaps most far-reaching, problem was to prove to the Navy as a whole that the training of instructors was a necessary step in the training program of the entire Navy.

After six weeks, the progress at Bainbridge seemed convincing enough to allow the expansion of instructor training to other training centers. The original team of instructor training officers had acquired valuable experience in this field and were sent to training centers at Great Lakes, San Diego, Farragut, and Sampson to establish instructor

training program. As the effectiveness of these early programs became more apparent, similar instructor training programs were inaugurated in practically every type of naval training.

By the end of World War II in 1945, there were three major instructor training schools in operation in the Navy. The Director of Training in every Naval District had on his staff an instructor training officer, shipboard training programs had the services of instructor trainers, and many other special types of instructor training had been established. Much of the credit for this notable advancement since early 1943 was due Captain A. John Bartky, U.S.N.R., now Dean of the School of Education at Stanford University, and his many associates in the Bureau of Naval Personnel who were the true pioneers of Navy instructor training.

Following the war, reorganization took place at an alarming rate. No instructor training schools were provided for, and the instructor training officers, being civilian educators, were demobilized. The Instructor Training Unit in the Bureau of Naval Personnel, which had been established in September of 1943, was retained. This Unit was staffed with civilians who had served as instructor trainers during the war. The main responsibility of the unit was to assist naval instructors to:¹

1. Ibid., p. 3.

1. Orient themselves to the job of instructing.
2. Interpret standard curricula in terms of available equipment and other local conditions and to help put these curricula into operation.
3. Develop effective teaching methods appropriate to the subject being taught.
4. Obtain the fullest utilization of available equipment.
5. Develop shops and laboratories and organize appropriate work stations, in order that trainees might perform practical jobs under instruction.
6. Prepare instruction sheets to guide trainees in the performance of practical jobs.
7. Prepare instructional materials such as course outlines and lesson plans to improve instruction.
8. Develop appropriate tests for measuring the learning of students and the effects of instruction.
9. Prepare manuals for naval instructors on how to teach.

During demobilization after World War II, the shortage of personnel aboard active naval vessels was so acute that it was considered necessary to drastically curtail the number of men in DuPers schools ashore. This resulted in a shortening of school terms, elimination of much material from the curriculum, and the decommissioning of all instructor training schools.

During the period from 1946 through 1948, it became evident that the quality of instruction in DuPers schools had deteriorated to a low point and could not be brought back to its former level without special training for the

Instructors. As a consequence, in January of 1949, two instructor training schools were officially re-established. One school was located in Norfolk, Virginia and the other in San Diego, California.

Basic "A" Course at San Diego¹

The original curriculum for the Instructor Training School was designed for a four-week term, five days a week, six periods per day, for a total of one hundred twenty periods. The activities for these periods were grouped as follows:

1. Thirty-seven periods of instructional procedures.
2. Thirty-three preparation periods.
3. Thirty practice teaching and evaluation periods.
4. Fourteen periods of review and test.
5. Six periods of field trips to observe instruction.

The first topic under instructional procedures consisted of two periods of introduction to the course. The important points covered in these introductory lectures were the importance of training in the Navy, the importance of qualified instructors, the content of the course, and the conduct of the course. The next topic also consisted of two periods of instruction on the factors of learning. The students

1. Instructor Training School Curriculum (Four Week Course), U.S. Naval School, Instructors, Class C-1, NavPers 91573, Bureau of Naval Personnel. Washington, D.C.: The Bureau, 1948.

were informed of the factors that promote learning and those that hinder learning. After a thorough classroom discussion in which all students took an active part, a preparation period was used to enable students to prepare five-minute talks on this topic to be presented to the class. How to study was then presented, covering criteria for proper study conditions and for the development of effective study habits. The objectives of topic four were to acquaint student-instructors with the purpose and value of lesson plans, to acquaint them with acceptable forms of lesson plans, to develop an understanding of the use of a properly written lesson plan, and to develop skill in writing lesson titles and objectives. Upon completion of this topic, another preparation period was used to write titles and objectives, emphasis being placed on material which could be used in later practice teaching sessions. The two periods spent on instructional analysis were devoted to the purpose and value of instructional analysis, the course of study outline, identification and listing of essential elements in a rating, the recognition of essential information for course selection, definition of job analysis, elements in a job or project analysis, the technique of listing operating steps, and the advantages of making a job analysis. Training aids was the next topic of the basic course. This consisted of the importance, types, and procurement of training aids; selection and preparation; the importance of selecting the right aid for use at the right time; reasons for evaluating each aid

before it is used; the importance of good utilization practices; the value of preparation; the different types of projection equipment and the operational features of each; the importance of good projection and arrangement of screen, speakers, etc.; projector allowance and methods of procurement; demonstration of training aids designed and produced by other Navy instructors; evaluation of own course of instruction and suggestions as to where simple training aids would help clarify learning concepts; criteria for planning and designing simple aids. Four periods were spent on this topic. Following this, five periods were spent on methods of instruction. The first two periods were employed in defining the various methods of instruction, a detailed discussion of the lecture method, the technique of oral questioning, and the advantages for effective teaching in using a combination of methods. The last three periods on this topic covered the preparation and use of the demonstration and directed-discussion methods of instruction. The planning of instruction was allotted six periods to cover the following material: the processes and value of material preparation; the purposes of instruction and the techniques of introduction; the content and technique of presentation; the purpose, use, and methods of applying what has been learned; a discussion of summarizing and reviewing techniques; and the purpose and techniques of making assignments.

Shop planning and management was devoted to the characteristics of a good training room, organization for effective training and maintenance, and organization for safety. The next topic was concerned with the problems and techniques of administrative and classroom scheduling. Following this was the topic acquainting the students with the purpose and types of evaluations of teaching techniques, devices used in making such evaluations, the methods of using these devices, and the factors to be considered in making evaluations of teaching techniques. The definitions, types, and general considerations to be aware of in the employment of instruction sheets were discussed in one period. The next three periods were used in discussing the characteristics, preparation of, and utilization of information sheets, job sheets, and assignment sheets. The first period of the five assigned to testing techniques had the following objectives: to introduce the subject of educational evaluation and measurement, to stimulate thinking on the reasons for and importance of testing, to develop an understanding of the various testing techniques and types of tests with emphasis on their applicability to Naval training, to develop an understanding of the criteria for good testing as a basis on which may be developed skill in preparing sound tests. The four remaining periods of this topic were concerned with the construction, formulation of questions, and application of scoring keys for the essay type achievement test, the objective

types achievement tests, the performance test, and the identification test. The final two periods of instructional procedures were devoted to the purpose, types, and construction of scoring keys; and the use and techniques of interpreting test scores as the means for evaluating the effectiveness of instruction and the students' mastery of the material.

The preparation periods followed lectures and discussions in order to give the trainees immediate opportunity to apply the principles, methods, and techniques of instruction.

The student-instructors were also given numerous opportunities to present material to the class. These included short talks on the factors of learning, description and demonstration of training aids of their own design, and practice coaching based on lesson plans prepared under supervision.

It is to be noted that the basic elements of the curriculum and the time devoted to each, as enumerated, were cited from the original curriculum. With the passage of time and the first-hand experience gained in the actual employment of this curriculum, several factors have been changed. These changes have been the joint responsibility of the Instructor School Unit, Bureau of Naval Personnel, and the staff of the Instructor School at San Diego.

Basically, however, the content of the curriculum continues to emphasize the major phases discussed in the preceding sections.

Objectives of School and Criteria Used

The steps in making an evaluation are summarized as follows:¹

1. Define the objectives.
2. Use evaluation instruments and techniques to determine the status and the change in status of the subject to be evaluated.
3. Interpret the findings.
4. Make recommendations for improvement.

The objectives of the basic A course at the Instructor School are set forth as follows:²

1. Gain a realization and appreciation of the important place of qualified instructors in the Navy training program.
2. Improve Navy instruction through the proper utilization of effective teaching techniques.
3. Develop instructors having the highest possible degree of knowledge and skill in the training of Navy personnel.

1. Harry N. Rivlin, Editor, Encyclopedia of Modern Education, p. 286. New York: The Philosophical Library of New York City, 1943.

2. Instructor Training School Curriculum, p. C.

In selecting criteria with which to measure the degree of attainment of these objectives, personal opinions of naval officers and civilian educators familiar with the naval training establishment were solicited. In addition, research was conducted in current literature. This latter method did not prove too beneficial, since it was mostly concerned with evaluation of teachers with emphasis on the educational implications. The naval school, however, is primarily concerned with training.

The first criterion selected was instructor improvement. In a survey covering several studies over a period of many years, Morris¹ found that teacher competence could be adequately measured by supervisors' ratings if they covered a long enough period of time and enough observations. Pupil gain was determined to be limited to what the teacher was actually attempting to accomplish at the time. This limitation does not appear to affect the usefulness of this method at a navy school, since the primary objective at the school is to teach a specific skill or trade.

The next criterion used was motivation, how effective was the Instructor School in instilling a real desire in the student-instructors to become able and enthusiastic naval instructors.

1. Bruce Lehmer Morris, Teacher Competence as Defined by Teacher Educators, Unpublished Master's thesis, School of Education, Stanford University, Stanford, California, 1940.

The third criterion was carry-over, how many of the techniques and ideas taught at the Instructor School were actually employed by the graduates in their instructing billets. In interpreting the results of this measurement, two factors would have to be taken into consideration: was the lack of carry-over a result of deficiencies at the Instructor School, or was it caused by conditions and attitudes at the service schools.

Fox, Bish, and Ruffner¹ state that investigation of what happens to students after they leave school in relation to their training in the school is an excellent method of determining teacher effectiveness. They proceed to give two methods which may be employed in such an investigation:

1. Questionnaires sent to graduates in which they may evaluate their school training in light of their existing job situations.
2. Questionnaires to employers in which they may evaluate the school training received by the employees in light of their job performance.

The fourth criterion used was a similar evaluation by the graduates of the Instructor School and by their commanding officers of the effectiveness of the course of instruction at the San Diego school.

1. James Harold Fox, Charles Edward Bish, and Ralph Windsor Ruffner, School Administration, Principles and Procedures, pp. 72-3. New York: Prentice-Hall, Inc., 1948.

CHAPTER III

MEASUREMENTS OF CRITERIA ATTAINMENT

Introduction

Navy service schools at Treasure Island, San Francisco and San Diego were visited in compiling the data required. In addition, a visit was made to the Recruit Training Command in San Diego. In order to measure instructor improvement, it was originally intended to compare supervisors' ratings of instructors who were graduates of the San Diego Instructor School with those of non-graduates. This was possible in only one of the schools visited. The others were staffed almost entirely by graduates of the instructor school; thus no comparison was possible between these instructors and non-graduates. In this situation, a search of the files was conducted. Supervisors' ratings of instructors were found in some cases covering the instructing experiences of graduates prior to and after their attendance at the instructor school. This allowed a measure of instructor improvement by a comparison of ratings before and after graduation. At one school neither method was applicable. Here it was necessary to measure instructor improvement by comparing grades of student classes taught by graduates with those taught by non-graduates.

Another method contemplated for measuring instructor improvement was the use of student evaluations of the

instructors. This would enable a comparison to be made between the ratings of graduates and those of non-graduates. Again this was found possible in only one of the schools for the same reason as mentioned under supervisors' ratings.

A graduate questionnaire for instructors who had completed the course at the San Diego Instructor School was devised, (Appendix A), and delivered in person to the schools involved in the study. From this questionnaire, data was collected to measure the attainment of other criteria.

Instructor Improvement

In two service schools visited a total of thirty instructors were evaluated by their supervisors both before and after their attendance at the instructor school. The results of these evaluations are tabulated in Table I. Of the total number evaluated, twenty-five showed improvement after completing the instructor course, five showed no improvement, and none showed negative improvement. Of those rated initially as "unsatisfactory", two improved to "excellent", five to "good", and three to "average". Of those rated as "average", two improved to "excellent", seven to "good", and three remained as "average". Of those rated as "good", six improved to "excellent", and two remained as "good". All ratings were gathered from supervisor

evaluation sheets, completed by officers stationed at the respective schools. The evaluations used were those of instructors who had taught a sufficient length of time at the same school prior to and after attending instructor school to enable the evaluator to make significant comparisons.

TABLE I
SUPERVISOR RATINGS OF INSTRUCTORS

Rating	No. before Instructor School	No. after Instructor School	Number Improved	Number Same	Number Negative Improved
Excellent	0	10	0	0	0
Good	3	14	6	2	0
Average	12	6	9	3	0
Unsat.	10	0	10	0	0
Totals	30	30	25	5	0

At the service school where instructor improvement was measured by comparison among graduates and non-graduates, a total of fifty-three instructors was rated, eighteen of whom were graduates of instructor school. This school was divided into divisions or sections. The instructors of each division taught subjects of about equal difficulty from the students' point of view, and were evaluated by the same supervisors. The rankings of the graduate within each division, as computed from supervisors' rating sheets, are shown in Table II.

TABLE II
COMPARISON OF GRADUATE WITH NON-GRADUATE INSTRUCTORS

Division	Total No. Rated	No. Graduates	Relative Ranking of Graduates
First	13	2	10 and 13
Second	12	5	3, 5, 8, 9, and 12
Third	12	2	7 and 9
Fourth	6	3	2, 5, and 6
Fifth	3	2	1 and 3
Sixth	7	4	1, 5, 6, and 7
Totals	53	18	

Instructor growth as measured by students' grades at the fourth school is shown in Table III. All four instructors taught at the same school prior to and after attending instructor school. As seen in the table, the grades of three classes of students showed improvement. One class showed negative improvement. The instructors did not teach the same students after graduating from instructor school. However, all students at this service school were, and still are, selected according to Bureau of Naval Personnel standards.

In another study at this same school, the grades of four classes taught by graduates of the instructor school were compared with the grades of another class taught at the same time by a non-graduate. The average of the latter class was 86.40 as compared with the averages of 87.79, 91.00, 89.47, and 90.58 of the graduate instructors' classes.

TABLE III
STUDENT GROWTH

Graduate Instructor	Class Average Prior to Attend- ing Instructor School	Class Average After Attend- ing Instructor School	Class Average Gain
A	83.17	86.67	4.50
B	82.26	89.12	6.86
C	86.93	85.80	(-) 1.13
D	85.27	87.49	2.22

Ratings by students of thirty-five non-graduate instructors and fifteen graduate instructors were obtained at one service school. Individual evaluation sheets from 838 students were examined. The results of these evaluations are tabulated in Table IV. These ratings are again listed by divisions since the students in each division were taught by the same instructors; i.e. students in division one were taught only by instructors from the same division.

TABLE IV
STUDENTS' RATINGS OF INSTRUCTORS

Division	Non-Graduate Instructors				Graduate Instructors			
	Excellent	Good	Average	Poor	Ex	Good	Average	Poor
First	1	8	2	0	1	0	1	0
Second	1	4	2	0	1	1	2	1
Third	1	7	2	0	0	2	0	0
Fourth	0	1	2	1	1	2	0	0
Fifth	0	3	0	0	0	2	1	0
Totals	3	23	8	1	3	7	4	1

Motivation

Graduate questionnaires were answered by 132 graduates of the San Diego School. One question asked was "when you were graduated from the school were the methods, thoughts, and techniques taught and the importance of your future role as an instructor so instilled in you that you were anxious to give them an immediate and full trial?". Of the 132 graduates answering, 89% of them replied Yes, 10% answered "Somewhat", and a total of two men answered "No". One man answering in the negative gave as his reason, As an ordnanceman out of my profession, I would need time to study technical ordnance in refresher course. The other answering in the negative commented as follows, Two years as instructor prior to attending 'IT' school had dulled the first fresh enthusiasm and desire to rush into a teaching situation."

Some comments most representative of those men answering in the affirmative are quoted below:

Having been an instructor for about 44 months prior to attending the school, was anxious to try some of the different techniques taught.

Object of 'IT' School was to teach me how to teach others what I know about my rating through subjects outlined by BuPers Curriculum--was anxious to see results.

Anything which will improve the Navy and the men in it is what each instructor should strive for...

Good quartermasters are essential to the safety of a ship, a good instructor is essential to make good quartermasters--this school shows the way.

CARRY-OVER

A measure of carry-over was obtained by use of the section in the graduate questionnaire which was headed "Your actual use of methods and ideas in present billet". The results of this question are shown in Table V. The reason given by all instructors of the fifty-seven percent who said they did not use the techniques taught in "Shop planning and management" was the subject in question was not applicable at the school where they were instructing. The procedures at all four schools visited consisted almost entirely of classroom lectures and demonstrations. The same reason was given by all of the thirty-five percent who did not use "Scheduling techniques" as taught at the instructor school. A separate board at each of the schools did all the scheduling for the entire school. Not applicable was again the reason given by the twenty-two percent of instructors who had never used the techniques of "Instruction sheets." The items in Table V are lettered to correspond with the items of the questionnaire in Appendix A.

TABLE V

ACTUAL USE OF INSTRUCTOR SCHOOL METHODS
AND TECHNIQUES BY GRADUATES

Item No.	Percent Using Almost Always	Percent Using Sometime	Percent Using Not At All
a.	85	15	0
b.	75	20	5
c.	54	35	11
d.	81	19	0
e.	53	38	9
f.	77	22	1
g.	84	15	0
h.	91	9	0
i.	16	27	57
j.	44	21	35
k.	53	41	6
l.	47	31	22
m.	72	25	3
n.	81	17	2
o.	59	30	11

Comments of Graduates and Service School Administrators

Question number two of the graduate questionnaire was employed to poll the graduates on what they thought of the curriculum in use at the instructor school. Results are shown in Table VI. It can be seen from the table that low points are reached on items c, f, i, j, and p. In item c, "How to study", a total of thirty-four percent of the graduates indicated that it was of little or no value to them. The reasons given were varied, the most representative ones being: "Already knew how to study before attending C-1 school", and "Did not understand the subject and not enough time was given to it to clear up the hazy points". Answers

to item f, "Training Aide", indicated that twenty percent of the graduates were dissatisfied with that subject. The principal criticism was that it was poorly presented and "not enough time was spent on it". Sixty-five percent of the graduates "Little or No" to item i, "Shop planning and management". The main reasons given for this negative result were "It was not applicable to the type of instructing I was doing", and "It was not especially well presented".

TABLE VI
COMMENTS BY GRADUATES

Item	Value To You			Time Spent		
	Very Much	Little	None At All	About Right	Too Much	Too Little
a.	92	8	0	94	0	6
b.	89	11	0	83	0	9
c.	66	31	3	65	13	22
d.	95	5	0	83	0	17
e.	79	18	3	73	4	23
f.	80	15	5	75	5	20
g.	94	6	0	83	3	14
h.	95	5	0	82	1	17
i.	35	28	25	41	34	15
j.	65	23	14	72	10	18
k.	81	12	0	81	3	16
l.	73	21	1	83	6	11
m.	92	8	0	72	2	26
n.	91	9	0	86	1	13
o.	95	5	0	65	0	35
p.	34	36	30	47	25	28

Note: Figures are percents of graduates.

Answers to item j showed thirty-seven percent who received little or no value from "Scheduling techniques". The principal reason given here by most of this group was that scheduling was already accomplished by the school from which they had come. Answers to item p, "Field trips", was thought by sixty-six percent of the men questioned to be of negligible value. The explanations for this large percentage were that the men did not learn enough from the trips, the instruction in the classes visited was not good, and the trips were too few and too short.

Table VI also presents the opinions of the graduate instructors concerning the time spent on each phase of the Instructor School curriculum. The subjects on which it was thought too much time was spent were item i, with thirty-four percent indicating such thought, and item p, with twenty-five percent making such choice. Items c, e, f, n, o, and p were thought to have been given in too short a time. These results were somewhat related to those discussed under "Value to you". Comments indicated there that items c, f, and p were of little or no value because not enough time had been spent on them. On the other hand, comments on item i indicated that this subject was just not applicable; therefore thirty-four percent of the graduates polled thought too much time had been spent on it.

Another section of the graduate questionnaire requested information as to what was the Instructor School's most

important contribution to the graduates. Three significant answers were given. The contribution suggested by thirty-two percent of the graduates was the ability to plan and prepare an orderly and interesting lesson. The next in importance was a new-found confidence in their ability to stand before a group and deliver a well-presented talk. Twenty percent called this the major contribution. Eighteen percent stated that a knowledge of the techniques and methods of instruction was the most important contribution made to them. The opinions of the remaining thirty percent were distributed over several of the specific subjects taught at the school.

In the last part of the questionnaire, graduate instructors were asked to comment on their tour of duty at the San Diego Instructor School. Of those commenting, one hundred percent indicated that their four-week course had proven of the greatest value to them in their instructing billets. Thirty percent indicated that they believed the course should be lengthened, and twenty-five percent recommended that all service school supervisors and administrators should attend. Several graduates volunteered statements showing that their own personal instructing techniques had improved as a result of their having attended instructor school. Some of these statements are quoted below:

My additional knowledge greatly improved my instructing ability.

It taught me how to make my job more effective for myself and the students.

After finishing school, I became Company Commander for a recruit company and ended up with the fourth highest company. I owe this to the instructor school.

It improved my methods to instruct recruits.

A final measure of this criterion was determined from the comments of service school administrators. One Navy captain, the commanding officer of a large technical school, was interviewed personally. He strongly recommended the San Diego Instructor School, stating that the caliber of the instructors ordered to his command for duty had shown a marked increase in recent months. He attributed this to the fact that these men were now required to complete the basic course at the instructor school prior to reporting to him for duty. At another school, the following quotations were taken from a report published yearly covering the important events occurring during the past year:

Revised training aids developed from ideas of the instructors have been placed in use with highly satisfactory results. It is anticipated that eventually every lecture given by this department will utilize training aids insofar as possible. A great deal of credit is due C-1 school for pointing out the value, and stressing the use of training aids as an integral part of a lecture.

All lesson plans covering the lectures (at this school) are in the process of being revised. New lesson plans are being set up on the principles for lesson planning as advocated by the "C-1 Instructor School".

Overall discipline and classroom attention of all (students) has greatly improved over previous months. This improvement is due in a large part to the combined facts that all lesson plans have been revised and all....instructors have now satisfactorily completed a course of instruction at the "C-1" Instructor School.

All lesson plans covering lectures at.... have been revised and designed on the principles of lesson planning as advocated by the Instructor School, Class C-1. The new lesson plans are now in use and have proved more effective, having attained a monthly teaching average of 3.672, a gain of .125 over the previous month.

An administrator at another service school visited had the following to say concerning the San Diego Instructor School:

The instructor course at H.T.C. is most definitely an asset, and brings to the attention of instructors factors of learning which they may otherwise never fully appreciate or understand. The effectiveness of the course, as the effectiveness of any course is in large measure a function of the receptiveness of each individual. Those instructors who desired to get the most from the course obviously did--to their own and their students' advantage. Some are even concerned with the factor of semantics--choice of words--a problem long recognized but never before adequately dealt with. Others are busily engaged improving our own course in altering sequences of presentation, methods of presentation, and introducing new home-made training aids. One group has even launched a long-range program of constructing a student manual, consisting of study guides, information sheets, assignment sheets, and questionnaires.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Objectives

The objectives of the basic A course at the Instructor School, Class C-1, at San Diego were set forth as follows:¹

1. Gain a realization and appreciation of the important place of qualified instructors in the Navy training program.
2. Improve Navy instruction through the proper utilization of effective teaching techniques.
3. Develop instructors having the highest possible degree of knowledge and skill in the training of Navy personnel.

Measurement of Attainment of Objectives

1. The initial criterion used for the measurement of the fulfillment of the stated objectives was instructor improvement. Supervisors' ratings, students' ratings, and student growth were employed with the following results:

- a. Prior to their attending the Instructor School, thirty instructors at once service school were rated by their supervisors. After having completed the course, they were rated again

1. Supra, p. 19.

by supervisors at the same school. Twenty-five of these petty-officers were rated as markedly improved, and the remaining five were rated as unchanged.

b. At another service school, fifty-three instructors, of whom eighteen were graduates of instructor training, were rated by supervisors. From these ratings a comparison of instructors was made by ranking. Graduates of the Instructor School were ranked first in two divisions and last in five with the remainder being distributed throughout the rankings.

c. In comparing the average grades of four classes taught by instructors after they had completed instructor training with the grades of classes taught by the same instructors before they had attended instructor school, three of the four showed a significant gain and one showed a decrease. At the same school, the average grade of a class taught by a non-graduate instructor was found to be lower than the average grades of four other classes taught by graduates.

d. In comparing students' ratings of instructors, three graduates of the Instructor School and three non-graduates were rated "excellent",

seven graduates and twenty-three non-graduates were rated "good", four graduates and eight non-graduates were rated "average", and one graduate and one non-graduate were rated "poor".

The evidence presented would appear to indicate that the over-all teaching ability of Navy instructors was improved by their attendance at the San Diego Instructor School. It seems as though the most significant results can be obtained by supervisors' ratings of instructors prior to and after their attendance at the Instructor School, and by comparisons of student growth. Comparing supervisors' ratings of graduates with those of non-graduates did not seem to offer significant results. It is felt that age, experience on the job, subject being taught, and other factors contribute greatly to a measurement of over-all teaching effectiveness. It is difficult to separately evaluate each factor. Comparison, then, of instructors does not appear to be a favorable method of measuring improvement in instruction as a result of having had teacher training.

2. The second criterion employed was motivation. The attainment of this was measured by direct questionnaire to the instructors who had graduated from the Instructor School as to whether they were motivated while at school. Of the 132 graduates queried, eighty-eight percent answered in the affirmative. This figure appears quite significant

in measuring the degree of attainment of the first objective of the school. In order for one to be successful at any task or job, he must have the desire to do the job to the best of his ability. Instructing in the Navy is no exception. It seems logical, then, that the school entrusted with the responsibility of turning out Navy instructors must instill in them this desire or all else is wasted. It is felt that the criterion of motivation is the most important of all, and precedes all.

3. In measuring the degree to which the ideas and techniques taught at the Instructor School were actually employed by graduates in their instructing billets, the items found least used were shop planning and management, scheduling techniques, and instruction sheets. The most significant reason given for these inadequacies was that they were not applicable at the service schools where the men were instructing. This does not appear to be any reflection on the Instructor school, since the service schools either had no immediate use for the items, or individual instructors were not required to employ these techniques. The high percentage of instructors actually using the remaining instructional techniques indicated a high degree of carry-over.

4. Comments of graduate instructors and administrators were most significant in evaluating the effectiveness of the San Diego Instructor School. Deficiencies in the curriculum were noted by graduates. From these comments it appears

that revisions and corrective actions are required in the following phases: how to study, training aids, shop planning and management, and field trips. The instruction in training aids and field trips was considered by a large percentage of graduates to have been inadequate. It is apparent that more time and planning are required in presenting the uses, techniques, and availability of training aids at the Instructor School. In addition, increased use of the aids in the everyday instructing by the staff at the school seems to be required. Better planning and administration of field trips appear to be needed. Selection of schools and classes to be visited should be such that the student-instructors observe good teaching techniques and classroom procedures with a minimum of crowding and other distracting inconveniences.

Graduate students' comments strongly indicated that their four-week course at the Instructor Training School was most instrumental in helping them better perform their jobs as Navy instructors. Administrators at various service schools were highly appreciative of the effective training received at the San Diego school by instructors under their command. It appears that the curriculum at the school, with few exceptions, is very well formulated and administered, and the stated objectives are being more than adequately attained.

Fields for Further Research

1. The development of a standard evaluation form to be distributed to graduates of the Instructor School after they have been on duty as instructors for a period of about six months. This form would enable them to evaluate the instruction they had received in light of their later actual teaching experiences in the field.

2. The development of an evaluation form for administrators of service schools with which to evaluate the effectiveness of the Instructor School in light of the actual job performance of the graduates under their command. These forms, used together, would afford a running and continuous measure of the effectiveness of instruction at the Instructor School.

3. A study to evaluate the course given at the Instructor School for prospective N.R.O.T.C. instructors.

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APPENDIX

QUESTIONNAIRE

Name _____ Rate _____ GCT Score _____

1. Total instructing experience in service school or recruit training billets _____ mos.

2. The main topics of the curriculum at San Diego are listed below. Place checks in the appropriate columns for each.

	Value to you			Time spent			Your actual use of methods and ideas in present billet		
	Very Much	Little	None at all	About Right	Too Much	Too Little	Almost Always	Some time	Not at all
a. Introduction									
b. Factors affecting learning									
c. How to study									
d. Planning instruction									
e. Instructional analysis									
f. Training aids									
g. Methods of presentation									
h. Lesson plan preparation									
i. Shop planning and management									
j. Scheduling techniques									
k. Evaluation of teaching techniques									
l. Instruction sheets									
m. Testing techniques									
n. Preparation periods									
o. Practice teaching and evaluation									
p. Field trips									

3. If you have any checks in the last two columns of "Value to you" comment below as to why.

4. If you have any checks in last two columns of "Your actual use of methods and ideas in present billet" comment below as to why.

5. When you were graduated from the school were the methods, thoughts, and techniques taught and the importance of your future role as an instructor so instilled in you that you were anxious to give them an immediate and full trial? Yes ☐ No ☐ Somewhat.

6. Comment on your above answer.

7. What do you consider to be the school's most important contribution to you?

8. List any other contributions in order of decreasing importance.

9. Make any further comments concerning your tour of duty at the Instructors Training School at San Diego that you may wish.

DATE DUE

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